This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A recombinant immunoconjugate, comprising a therapeutic agent or a detectable label covalently linked to a recombinant RFB4 disulfide-stabilized Fv (dsFv) having a variable heavy chain (V_H) comprising SEQ ID NO:2 in which a Cys residue is substituted for Arg at position 44 ~~with a cysteine at amino acid position 44, which heavy chain is at least 95% identical to SEQ ID NO:2~~; and a variable light chain (V_L) comprising SEQ ID NO:4 in which a Cys residue is substituted for Gly at position 100 ~~with a cysteine at amino acid position 100, which light chain is at least 95% identical to SEQ ID NO:4; wherein the RFB4 dsFv competes for binding to CD22 with a prototype RFB4 dsFv comprising a variable heavy (V_H) chain of SEQ ID NO:2, in which a Cys residue is substituted for Arg at position 44; and a variable light (V_L) chain of SEQ ID NO:4, in which a Cys residue is substituted for Gly at position 100, and wherein the RFB4 dsFv has 90% or greater of the binding affinity of the prototype RFB4 dsFv~~.

2. (original) The recombinant immunoconjugate of claim 1, wherein said therapeutic agent is a toxin.

3. (original) The recombinant immunoconjugate of claim 2, wherein said toxin is a *Pseudomonas* exotoxin (PE) or a cytotoxic fragment thereof.

4. (original) The recombinant immunoconjugate of claim 3, wherein said cytotoxic fragment is PE38.

5. (cancelled herein)

6. (previously cancelled)

7. (previously amended) The recombinant immunoconjugate of claim 3, wherein said variable heavy (V_H) chain is covalently linked to the carboxyl terminus of said toxin.

8. (previously amended) The recombinant immunoconjugate of claim 5, wherein said V_H chain is covalently linked to said V_L chain through a linker peptide.

9. (previously amended) The recombinant immunoconjugate of claim 5, wherein said V_H chain is linked to said V_L chain through a cysteine-cysteine disulfide bond.

10. (original) The recombinant immunoconjugate of claim 8, wherein said linker peptide has the sequence of SEQ ID NO:5.

11. (currently amended) An expression cassette encoding a recombinant immunoconjugate comprising a sequence encoding for a toxin peptide and an antibody that binds to an RFB4 disulfide-stabilized Fv (dsFv) having a variable heavy chain (V_H) comprising SEQ ID NO:2 in which a Cys residue is substituted for Arg at position 44 ~~SEQ ID NO:2 with a cysteine at amino acid position 44, which heavy chain is at least 95% identical to SEQ ID NO:2~~; and a variable light chain (V_L) comprising SEQ ID NO:4 in which a Cys residue is substituted for Gly at position 100 ~~with a cysteine at amino acid position 100, which light chain is at least 95% identical to SEQ ID NO:4; wherein the RFB4 dsFv competes for binding to CD22 with a prototype RFB4 dsFv comprising a variable heavy (V_H) chain of SEQ ID NO:2, in which a Cys residue is substituted for Arg at position 44; and a variable light (V_L) chain of SEQ ID NO:4, in which a Cys residue is substituted for Gly at position 100, and wherein the RFB4 dsFv has 90% or greater of the binding affinity of the prototype RFB4 dsFv.~~

12. (cancelled herein).

13. (original) The expression cassette of claim 11, wherein said toxin is a *Pseudomonas* exotoxin (PE) or a cytotoxic fragment thereof.

14. (original) The expression cassette of claim 11, wherein said cytotoxic fragment is PE38.

15. (previously cancelled)

16. (previously amended) The expression cassette of claim 12, further comprising a sequence encoding for a linker peptide having the sequence of SEQ ID NO:5.

17. (original) A host cell comprising an expression cassette of claim 11.

Claims 18-21 (previously cancelled)

22. (previously amended) A method for inhibiting the growth of a malignant B-cell that expresses a CD22 molecule on the surface of the cell, said method comprising:

contacting said malignant B-cell with an effective amount of a recombinant immunoconjugate of claim 1, thereby inhibiting the growth of the malignant B-cell.

23. (original) The method of claim 22, wherein said toxin is a *Pseudomonas* exotoxin (PE) or a cytotoxic fragment thereof.

24. (original) The method of claim 22, wherein said malignant B-cell is contacted *in vivo*.

25. (original) The method of claim 22, wherein said malignant B-cell is selected from the group consisting of: a rodent B-cell, a canine B-cell, and a primate B-cell.

26. (original) The method of claim 23, wherein said cytotoxic fragment is a PE38 fragment.

27. (cancelled herein)

28. (previously cancelled)

29. (previously amended) The method of claim 23, wherein a variable heavy chain is covalently linked at the carboxyl terminus of said toxin.

30. (previously amended) The method of claim 29, wherein said V_H chain is covalently linked to said V_L chain through a linker peptide.

31. (original) The method of claim 29, wherein said V_H chain is linked to said V_L chain through a cysteine-cysteine disulfide bond.

32. (original) The method of claim 31, wherein said linker peptide has the sequence of SEQ ID NO:5.

Claims 33-49 (previously cancelled)